



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

FEB 1 9 2009

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Dr. Craig Kleppe BASF Corporation 26 Davis Drive Research Triangle Park, NC 27709-3528

Subject:

BAS 661 00 H Herbicide

EPA Registration No. 7969-148

Amended labeling submitted January 27, 2009

Dear Dr. Kleppe:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable, provided you make the following change before you release the product for shipment:

On page 6 of the label, change "Applications should not occur during temperature inversion" to Applications may not occur during temperature inversion" (change "should" to "may").

This amended labeling supersedes all previously accepted labeling with the exception of supplemental labeling. A stamped copy of labeling is enclosed for your records.

Submit one copy of final printed labeling before you release the product for shipment. Please include an electronic label in pdf text format of the final printed labeling with your submission. If you have any questions about this letter, you may contact Tobi Colvin-Snyder at 703-305-7801 or Colvin-Snyder.Tobi@epa.gov.

Sincerely,

Jim Tompkins

Product Manager 25

Herbicide Branch

Registration Division (7505P)



ACCEPTED WILL COMMENTS IN EPA Letter Dated FEB 1 9 2009

Under the Federal Insecticide, Fundicide, and Rodentieide Act as amended, for the pesticide registered under EPA Reg. No.

BAS 661 00 H

herbicide

For use in corn (field, pop, and seed) and grain sorghum

Active Ingredients:*

Dimethenamid: 2-chloro-N-[(1-methyl-2-methoxy)ethyl]-N-(2,4-dimethyl-thien-3-yl)-acetamide

. 53.41% . 10.67%

10.67% 35.92%

* contains 5.0 pounds of dimethenamid and 1.0 pound of dicamba acid per gallon
** contains petroleum distillates, xylene or xylene range aromatic solvent

EPA Reg. No. 7969-148

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN. DANGER/PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

See inside labeling for complete **Precautionary Statements**, **First Aid**, **Directions For Use**, and **Conditions of Sale and Warranty**.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:

Shake well before using.

BASF Corporation 26 Davis Drive, Research Triangle Park, NC 27709

FIRST AID		
If in eyes	 Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes Call a poison control center or doctor for treatment advice. 	
lf swallowed	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to by a poison control center or doctor. DO NOT give anything by mouth to an unconscious person. 	
If on skin or clothing	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. 	
If inhaled	 Move person to fresh air. If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth to mouth if possible. Call a poison control center or doctor for further treatment advice. 	

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

Precautionary Statements

Hazards to Humans and Domestic Animals

DANGER. Corrosive. Causes irreversible eye damage. DO NOT get in eyes, on skin, or on clothing. Causes skin irritation. Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are butyl rubber, neoprene rubber, and nitrile rubber.

If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, and applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- ·Shoes plus socks, and
- Chemical-resistant gloves (except for applicators using groundboom equipment, pilots and flaggers)
- Protective eyewear (such as face shield)

See engineering controls for additional requirements and exceptions.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT re-use them. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be re-used until it has been cleaned.

Engineering Controls Statement

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use cockpits in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6).

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- · Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothina.

Environmental Hazards

DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwaters or rinsate.

Dimethenamid has properties that may result in groundwater contamination. Application in areas where soils are permeable or coarse and groundwater is near the surface could result in groundwater contamination.

Dimethenamid has properties that may result in surface water contamination via dissolved runoff and runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

1) Point source contamination: To prevent point source contamination, **DO NOT** mix or load this or any other pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs...This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment washwaters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment. Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills, or c) improper disposal of excess pesticide, spray mixtures, or rinsatés. Check valves or antisiphoning devices must be used on all mixing equipment.

2) Movement dissolved in runoff or through soil:
DO NOT apply under conditions which favor runoff.
DO NOT apply to impervious substrates such as paved or highly compacted surfaces or frozen soils.

Groundwater contamination may occur in areas where soils are permeable or coarse and groundwater is near the surface. To minimize the possibility of groundwater contamination, carefully follow rate recommendations as affected by soil type in section **II. Application**Instructions. **DO NOT** apply to coarse soils classified as apply with less than 3% organic matter (as determined).

Instructions. DO NOT apply to coarse soils classified as sand with less than 3% organic matter (as determined by soil tests, if not known) and where depth to groundwater is 30 feet or less.

3) Movement by water erosion of treated soil: DO NOT apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least 0.5" of rainfall before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

All applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed. This labeling must be in the user's possession during application.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restrictedentry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of **48 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant headgear for overhead exposure
- Protective evewear

Storage and Disposal

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage: DO NOT use or store near heat or open flame. Store in original container in a well-ventilated area separately from fertilizer, feed, and foodstuffs. Avoid cross-contamination with other pesticides. Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable Container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure 2 more times.

In Case of Emergency

In case of large-scale spillage regarding this product, call: CHEMTREC 1-800-424-9300

BASF Corporation 1-800-832-HELP

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment.
- Your local poison control center (hospital).
- BASF Corporation (1-800-832-HELP)

Steps to be taken in case material is released or spilled:

Wear the personal protective equipment specified on the label. Recover the material for re-use according to label whenever possible. Cover the liquid with an absorbent material (such as pet litter). Sweep up and place in an appropriate container for disposal. Remove and wash clothing and personal protective equipment prior to re-use. Keep the spill out of all sewers and open bodies of water.

I. General Information

BAS 661 00 H herbicide is designed to provide preemergence control of most annual grasses, many annual
broadleaf weeds, plus burndown control of emerged
annual broadleaf weeds, and growth suppression of
many emerged perennial broadleaf weeds (refer to
Table 1). BAS 661 00 H provides residual control of
annual grasses, contact control of annual broadleaf
weeds, and residual control of some broadleaf weeds.
For broad spectrum broadleaf weed control,
BAS 661 00 H should be used in sequential applications
or tank mixes with other herbicides that provide additional control.

Mode of Action

BAS 661 00 H contains two herbicide active ingredients: dimethenamid and dicamba. Dimethenamid is a root and shoot growth inhibitor that controls susceptible germinating seedlings before they emerge from the soil. Dicamba is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. Dicamba interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Cleaning Spray Equipment

Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions and then triple rinsing the equipment before and after applying this product.

Table 1. Weeds Controlled

Annual Broadleaves³ Beggarweed, Florida¹ Buckwheat, Wild Burclover, California Burcucumber (Carelessweed) Carpetweed Chickweed, Common Clover, Annual, Red Cocklebur, Common Jimsonweed Knotweed Kochia Ladysthumb Lambsquarters, Common Mallow, Common, Venice Marestail (Horseweed) Mustard, Tansy, Yellowtops, Morningglory, Tall, Ivyleaf Nightshade, Black Pennycress, Field Pigweed, Prostrate, Redroot, Rough, Smooth, Tumble Puncturevine Purslane, Common Ragweed, Common, Giant (Buffaloweed), Lance-Leaf Sicklepod Sida, Prickly (Teaweed) Smartweed, Green, Pennsylvania Spanish Needles Spikeweed, Common

Spurge, Prostrate Sunflower, Common (Wild), Volunteer Thistle, Russian Velvetleaf Waterhemp Perennial Broadleaves¹ Alfalfa Bindweed, Field, Hedge Chickweed, mouse-ear, field, Dock, Curly, Broadleaf Dogbane, Hemp Smartweed, swamp Thistle, Canada **Annual Grasses** Barnyardgrass Crabgrass, smooth, large Cupgrass, southwestern, woolly1 Foxtail, giant, green, yellow Goosegrass Johnsongrass (seedling)2 Millet, wild proso1 Panicum, fall, Texas1 Red Rice Sandbur¹ Shattercane¹ Signalgrass, broadleaf Witchgrass Sedge Flatsedge, Rice Nutsedge, Yellow²

- Partial control or suppression. To complement control, BAS 661 00 H herbicide should be used in tank mixes or sequential applications with other herbicides that provide additional control of these weed species.
- ² For best control of these species use the highest rate specified by soil type. If dry conditions exist near application or excessive rainfall occurs early in season, a postemergence herbicide or cultivation may be required to help control these weeds.
- ³ BAS 661 00 H will provide burndown control of emerged broadleaf weeds plus early season residual control. For full season broadleaf weed control, BAS 661 00 H should be used in sequential applications or tank mixed with other broadleaf herbicides.

II. Application Instructions

BAS 661 00 H is recommended for preplant surface, preplant incorporated, pre-emergence, or early post-emergence use in corn and preplant use in grain sorghum. **BAS 661 00 H** may be applied using either water or fluid fertilizer as the spray carrier. Use of sprayable fluid fertilizer as a carrier is not recommended after crop emergence. Additionally, **BAS 661 00 H** may be impregnated on and applied with dry bulk fertilizer.

Irrigation

In irrigated areas, sprinkler irrigation may be used following application to ensure soil activation when natural rainfall does not occur.

Application Rate

Broadcast use rates for **BAS 661 00 H** when used alone, in a tank mix, or sequential applications in corn

are given in **Table 2**. Use rates of this product vary by soil type. The most accurate indicator of appropriate use rate for BAS 661 00 H is the Cation Exchange Capacity (CEC) of the soil to be treated. CEC values are available in standard soil testing procedures. If CEC values are not available, the use rate of BAS 661 00 H may be determined using the soil texture and organic matter. Soil texture groupings used in this label are coarse (sand, loamy sand, sandy loam), medium (silt, silt loam, loam, sandy clay loam), and fine (sandy clay, silty clay, silty clay loam, clay loam, and clay). DO NOT apply to sand-textured soil with less than 3% organic matter (as determined by soil tests, if not known) where depth to groundwater is 30 feet or less. To determine BAS 661 00 H use rates by either soil CEC values or by soil texture and organic matter, refer to Table 2. When use rates are expressed in ranges, use the lower rates for lower CEC values and use the higher rates for higher CEC values. If soil texture and organic matter content are used to determine use rates, use the lower rates for more coarsely textured soils low in organic matter and use the higher rates for more finely textured soils that are high in organic matter.

Table 2. BAS 661 00 H Application Rates Per Acre

As determined by Cation Exchange Capacity (CEC) of the soil				
Cation Exchange Capacity (CEC) of Soil	BAS 661 00 H Use Rate Per Acre			
<10	24-28 fluid ounces			
10-14	28-34 fluid ounces			
15-20	34-38 fluid ounces			
> 20	38 fluid ounces			
As determined by soil texture and organic matter content				
Cail Tautum	Organic Matter Content			
Soil Texture	Less than 3%	3% or more1		
Coarse	24-28 fluid ounces	28-32 fluid ounces		
Medium	28-32 fluid ounces	32-38 fluid ounces		
Fine	32-38 fluid ounces	38 fluid ounces		
Fine 32-38 fluid ounces 38 fluid ounce				

¹ On all soils with >8% organic matter, use 38 fluid ounces of **BAS 661 00 H** per acre.

Managing Off-target Movement Spray Drift

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. It is the responsibility of the applicator to avoid spray drift into nontarget areas.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural crops:

 The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

Nozzles must always point backward parallel with the airstream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the following <u>drift reduction advisory</u> <u>information</u>.

INFORMATION ON DROPLET SIZE

The best drift management strategy and most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see WIND; TEMPERATURE AND HUMIDITY; and TEMPERATURE

CONTROLLING DROPLET SIZE

INVERSIONS).

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure DO NOT exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight back produce the largest droplets and the lowest drift. DO NOT use nozzles producing a mist droplet spray.

BOOM LENGTH

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT

Making applications at the lowest possible height (aircraft, ground-driven spray boom) that is safe and practical reduces exposure of droplets to evaporation and wind. Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety.

SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. aircraft, ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

WIND

Drift potential is lowest between wind speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

Applications should not occur during temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud, that can move in unpredictable directions due to the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light-to-no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS

Spray drift from applying this product may result in damage to sensitive plants adjacent to the treatment area. Only apply this product when the potential for drift to these and other adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or nontarget crops or plants) is minimal. **DO NOT** apply when the following conditions exist that increase the likelihood of spray drift from intended targets: high or gusty winds, high temperatures, low humidity, temperature inversions.

WIND EROSION

Avoid treating powdery, dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

Air Application

Water Volume: Use 2 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Adequate spray volume must be used to provide accurate and uniform distribution of spray particles over the treated area and to avoid drift of spray particles to nontarget areas.

Application Equipment: Use nozzle screens no finer than 50 mesh when spraying tank mixtures with wettable powder or flowable formulations.

Special Directions for Aerial Application

To obtain uniform coverage and to avoid drift hazards, follow these guidelines:

- DO NOT apply BAS 661 00 H herbicide by aircraft when wind is blowing more than 10 mph. Use coarse sprays (larger droplets) as they are less likely to drift.
- DO NOT apply BAS 661 00 H by air if sensitive species are within 200 feet downwind.

The applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.

Ground Application (Banding)

When applying **BAS 661 00 H** by banding, determine the amount of herbicide and water volume needed using the following formula:

Bandwidth in inches
Row width in inches x Broadcast rate per acre = Banding herbicide rate per acre

Bandwidth in inches x Broadcast volume per acre = Banding water volume per acre

Ground Application (Broadcast)

Water Volume: Use 2 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Adequate spray volume must be used to provide accurate and uniform distribution of spray particles over the treated area and to avoid drift of spray particles to nontarget areas.

Application Equipment: Use nozzle screens no finer than 50 mesh when spraying tank mixtures with wettable powder or flowable formulations.

Ground Application (Dry Bulk Fertilizer)

BAS 661 00 H may be impregnated or coated onto dry bulk granular fertilizer carriers for preplant surface, preplant incorporated, or pre-emergence applications. Impregnation or coating may be conducted by either the in-plant bulk system or the on-board system. When impregnated onto some dry fertilizer blends,

BAS 661 00 H may exhibit a strong odor. Perform the mixing operation in well-ventilated areas.

BAS 661 00 H may also be applied in herbicide tank mixes where the tank mix companion product is also registered for these application systems. Individuals or agents selling **BAS 661 00 H** in these application systems are responsible for following all state and local regulations regarding fertilizer and herbicide blending.

Addition of a drying agent may be necessary if the fertilizer and herbicide blend is too wet for uniform application due to high humidity, high urea concentration, or low fertilizer use rate. Slowly add the drying agent to the blend until a flowable mixture is obtained. Drying agents are not recommended for use with on-board impregnation systems.

Under some conditions, fertilizer impregnated with **BAS 661 00 H** may clog air tubes or deflector plates on pneumatic application systems. Mineral oil may be added to **BAS 661 00 H** before blending with fertilizer to reduce plugging. **DO NOT** use drying agents when mineral oil is used. To avoid separation of **BAS 661 00 H** and mineral oil mixes in cold temperatures, either keep mixture heated or agitated prior to

blending with fertilizer. Mineral oil may be used at inplant blending stations or on-board injection systems.

Apply 200-750 pounds of the fertilizer and herbicide blend per acre. Application must be made uniformly to the soil to prevent possible crop injury and offer satisfactory weed control. Impregnated fertilizer spread at half rate and overlapped to obtain a full rate will offer a more uniform distribution. A shallow (1-2") incorporation is desirable for improved weed control. Deeper incorporation may result in unsatisfactory weed control.

Formula to determine the herbicide rate when using dry bulk fertilizer applications:

Fluid ounces or pounds

of herbicide per acre
Pounds of fertilizer per

acre

Fluid ounces or
pounds of herbicide
per ton of fertilizer

Incompatible Mixtures

DO NOT impregnate **BAS 661 00 H** or **BAS 661 00 H** mixes on ammonium nitrate, potassium nitrate, or sodium nitrate fertilizers or fertilizer blends. Single superphosphate (0-20-0) and triple superphosphate (0-46-0) may be impregnated only with **BAS 661 00 H** alone.

III. Additives

An agriculturally approved surfactant, crop oil, or sprayable fluid fertilizer or ammonium sulfate may be added to the spray mix to improve postemergence weed control, particularly on drought-stressed weeds. **BAS 661 00 H** application may be made using either water or fluid fertilizer as the spray carrier. To improve burndown of emerged weeds, surfactants and/or low rate fertilizer (28%, 30%, or 32% UAN or ammonium sulfate), may be used with **BAS 661 00 H** or **BAS 661 00 H** tank mixes applied preplant, preemergence, or early postemergence to the crop. Crop oil concentrate may be used with **BAS 661 00 H** in preplant or pre-emergence application but is not recommended for use after crop emergence.

Oil Concentrate

Crop oil concentrates may be used prior to crop emergence but are not recommended after crop emergence unless specified for a particular tank mix.

A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all of the following criteria:

- be nonphytotoxic,
- contain only EPA-exempt ingredients,
- provide good mixing quality in the jar test, and
- be successful in local experience.

The exact composition of suitable products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers to provide good mixing quality. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils.

Nitrogen Source

 Urea ammonium nitrate (UAN): Use 2-4 quarts of UAN (commonly referred to as 28%, 30%, or 32% nitrogen solution) per acre. DO NOT use brass or aluminum nozzles when spraying UAN.

• Ammonium sulfate (AMS): AMS at 2.5 pounds per acre may be substituted for UAN. Use high quality AMS (spray grade) to avoid plugging of nozzles. Other sources of nitrogen are not as effective as those mentioned. BASF does not recommend applying AMS if applied in less than 10 gallons per acre because of potential problems with precipitation in reduced volumes. Use AMS only if it has been demonstrated to be successful in local experience.

Nonionic Surfactant

Use 1 pint of an 80% active nonionic spray surfactant per 100 gallons of water. For certain weeds, a higher spray surfactant rate is recommended.

Table 3. Additive Rate Per Acre

Additive	Rate Per Acre
Nonionic Surfactant	1-2 pints per 100 gallons
AMS UAN Solution Crop Oil Concentrate	2.5 pounds 2-4 quarts 1 quart*

^{*} See manufacturer's label for specific use rates.

IV. General Tank Mixing Information

BAS 661 00 H herbicide may be tank mixed or applied sequentially with one or more of the following herbicide products according to the specific tank mixing instructions in this label and respective product labels.

Tank Mix Partners/Components

The following products may be tank mixed with **BAS 661 00 H** according to the specific tank mixing instructions in this label and respective product labels.

- Accent® (nicosulfuron)
- atrazine
- Balance® (isoxaflutole)
- Banvel® (dicamba)
- Basagran® (bentazon)
- Beacon® (primisulfuron)
- Celebrity® (dicamba + nicosulfuron)
- Clarity® (dicamba)
- Cyclone® (paraquat)
- Gramoxone® Extra (paraquat)
- Landmaster® (glyphosate + 2.4-D)
- Liberty® (bentazon + atrazine)
- Lightning® (imazapyr + imazethapyr)
- Marksman® (dicamba + atrazine)
- Peak® (prosulfuron)
- Permit® (halosulfuron)
- Princep® (simazine)
- Prowl® (pendimethalin)
- Pursuit® (imazethapyr)
- Roundup Ultra® (glyphosate)
- Touchdown® (sulfosate)
- 2,4-D

See section VI. Crop-Specific Information for more details. Read and follow the applicable Restrictions and Limitations and Directions For Use on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

Physical incompatibility, reduced weed control, or crop injury may result from mixing **BAS 661 00 H** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. BASF does not recommend using tank mixes other than those listed on BASF labeling. Local agricultural authorities may be a source of information when using other than BASF recommended tank mixes.

Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.

Add components in the sequence indicated in the **Mixing Order** using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

Always cap the jar and invert 10 cycles between component additions.

When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

Mixing Order

- 1) **Water.** Begin by agitating a thoroughly clean sprayer tank three-quarters full of clean water.
- 2) **Agitation.** Maintain constant agitation throughout mixing and application.
- 3) Products in PVA bags. Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4) Water-dispersible products (such as dry flowables, wettable powders, suspension concentrates, or suspo-emulsions). If an inductor is used, rinse it thoroughly after the component has been added.
- 5) Water-soluble products. If an inductor is used, rinse it thoroughly after the component has been added.
- 6) Emulsifiable concentrates (such as BAS 661 00 H herbicide, oil concentrate when applicable). If an inductor is used, rinse it thoroughly after the component has been added.
- 7) Water-soluble additives (such as AMS or UAN when applicable). If an inductor is used, rinse it thoroughly after the component has been added.
- 8) Remaining quantity of water.

Maintain constant agitation during application.

V. Restrictions and Limitations

- Maximum seasonal use rate: DO NOT apply more than a total of 38 fluid ounces of BAS 661 00 H herbicide per acre, per crop.
- Preharvest Interval (PHI): Refer to section VI. Crop-Specific Information for crop-specific preharvest intervals
 and feeding and grazing restrictions.
- Restricted Entry Interval (REI): 48 hours
- The New York State Department of Environmental Conservation prohibits use in Long Island, NY.
- Crop Rotation Restriction:
- If the crop treated with **BAS 661 00 H** is lost to adverse weather or for other reasons, the area treated may be replanted to corn immediately or grain sorghum 2 weeks or more after application. If the original **BAS 661 00 H** treatment was broadcast, **DO NOT** make a second application of **BAS 661 00 H**. If corn or grain sorghum are replanted, **DO NOT** apply **Clarity®**, **Banvel®**, **or Marksman® herbicides** until after emergence.
- If the original application was banded and the second crop is planted in the row middles, a second band application may be applied.
- Following **BAS 661 00 H** application and an accumulation of 1" or more of rainfall or overhead irrigation, soybeans may be planted after 14 days or more for rates up to 32 fluid ounces per acre and 21 days or more for rates above 32 fluid ounces per acre and up to 38 fluid ounces per acre. Soybeans should not be planted in the same year as **BAS 661 00 H** applications in geographic areas with average annual rainfall of less than 25".
- Fall-seeded cereals may be planted 4 or more months after a spring application of BAS 661 00 H.
- There are no rotational crop restrictions in the spring following the previous year's application of BAS 661 00 H.
- Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of BAS 661 00 H in controlling emerged broadleaf weeds.
- Stress: DO NOT apply to crops under stress such as stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating air temperatures, as crop injury may result.
- **DO NOT** apply through any type of **irrigation** equipment. **DO NOT** contaminate irrigation ditches or water used for domestic purposes.

VI. Crop-Specific Information

Corn (Field, Pop, and Seed)

BAS 661 00 H herbicide may be used in field corn (grown for grain, silage, or seed) and popcorn. Before applying to seed corn or popcorn, verify with your local seed company (supplier) the BAS 661 00 H selectivity on your inbred line or variety to avoid potential injury to sensitive inbreds or varieties.

BAS 661 00 H is not registered for use in sweet corn.

BAS 661 00 H may be applied preplant surface, preplant incorporated, pre-emergence, or early postemergence (up to 8" tall) to corn.

Corn may be grazed or fed to livestock 40 days or more after BAS 661 00 H application.

To avoid risk of injury from preplant or pre-emergence application, corn must be planted so at least 1.5" of soil cover the seed.

Preplant or Pre-emergence Applications in Minimum or No-Till Systems

Use for residual control of annual grasses, early season residual control of annual broadleaf weeds, postemergence control of emerged annual broadleaf weeds, and postemergence suppression of emerged perennial broadleaf weeds. BAS 661 00 H may be applied alone or in tank mixes up to 30 days before planting, during planting, or following planting and before crop emergence.

When making early preplant applications (15-30 days prior to planting) use the highest rate specified for the specific soil type. Early preplant applications are not intended for use on coarse-textured soils or in areas where average annual rainfall (or rainfall + irrigation) typically exceeds 40". Applications on coarse-textured soils made within 7 days of planting may result in temporary crop injury. Crop recovery should occur within 7-14 days.

Tank mixes with postemergence herbicides such as Roundup Ultra® (glyphosate), Touchdown® (sulfosate), or Gramoxone® Extra (paraguat), must be used when grasses are emerged at the time of application.

When planting into a legume sod (e.g., alfalfa or clover). or for added control of dandelion or plantain, 2,4-D at 0.25-0.5 pounds of a.i. per acre may be tank mixed with BAS 661 00 H.

Preplant or Pre-emergence Applications in Conventional or Reduced Tillage Systems

Use BAS 661 00 H for residual control of annual grasses and early-season residual control of annual broadleaf weeds. Broadcast the treatment uniformly to the soil surface before or after planting and before crop emergence. Rainfall, sprinkler irrigation, or mechanical incorporation after application is required to move this product into the upper soil surface where weed seeds germinate. If adequate rainfall or irrigation does not occur and weed seedling emergence begins, a shallow cultivation or rotary hoeing will improve performance. If BAS 661 00 H is mechanically incorporated into the soil, use equipment capable of providing shallow incorporation (maximum of 1-2" depth).

Streaking or deep incorporation may result in reduced weed control or crop injury. This application should only be made on medium- or fine-textured soils that contain 2.5% or greater organic matter or CEC of 15 or greater.

Early Postemergence Applications in All Tillage **Systems**

BAS 661 00 H may be used in early postemergence (spike up to 8" tall corn). Application must be made prior to grass seedling emergence or in a tank mix with products that control emerged grasses.

Sequential Applications of BAS 661 00 H BAS 661 00 H may be used in split application programs where applications are made as part of the methods described above. If applications are less than 2 weeks apart, the total BAS 661 00 H rate used must not exceed the maximum rate given for each specific soil type. If applications are 2 weeks or more apart, a total BAS 661 00 H use rate of up to 38 fluid ounces per acre per year may be used on any soil type.

Corn Tank Mixes and Sequential Uses

BAS 661 00 H may be tank mixed or applied sequentially in corn with one or more of the following herbicide products according to the specific tank mixing instructions in this label and respective product labels. Read and follow the applicable Restrictions and Limitations and Directions For Use on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

- Accent® 1
- atrazine
- Balance®
- Banvel® 1
- Basagran®
- Beacon® 1
- Celebrity® 1
- Clarity® 1
- Gramoxone Extra
- Liberty® 2

- Lightning®
- Marksman[®]
- Princep®
- Permit®
- Prowl®
- Pursuit® 3
- Roundup Ultra⁴
- Touchdown
- 2.4-D 5
- ¹ See **Table 4** for additional limitations or restrictions that apply for tank mix or sequential use programs with these products
- Use only on Liberty Link® (glufosinate tolerant) corn hybrids.
 Use only on CLEARFIELD® (imidazolinone tolerant) corn hybrids.
- 4 Includes postemergence use on Roundup Ready® (glyphosate tolerant) corn hybrids.
- ⁵ Tank mix partner for preplant and pre-emergence use only.

Table 4. Specific Guidelines for Tank Mixes or Sequential Use Programs

Tank Mix Partner	Rate Per Acre
Accent [®] or Beacon [®]	When tank mixing, applications immediately following extreme day or night temperature fluctuations or applications when daytime temperatures DO NOT exceed 50° F may result in decreased weed control or crop injury. Delay application until the temperatures warm and both weeds and crop resume normal growth.
Banvel [®] , Celebrity [®] , Clarity [®] , or Marksman [®]	Tank mixes with these products that contain dicamba must not exceed a total combined rate of 0.50 pounds of dicamba acid equivalent per acre (0.25 pound on coarse-textured soils). Up to 2 applications of BAS 661 00 H herbicide may be made during a growing season. Sequential applications of these products must be separated by a minimum of 2 weeks unless the combined rate is less than 0.5 pounds of dicamba acid equivalent per acre, (0.25 pounds on coarse-textured soils) and corn is 8" tall or less and must not exceed a combined total of 0.75 pounds dicamba acid equivalent per acre for in-crop use.

Sorghum (grain)

All **BAS 661 00 H** applications must only be made to sorghum seed that has been properly treated by the seed company with an approved chloroacetamide herbicide safener or severe injury may occur.

BAS 661 00 H may be applied 15-30 days prior to planting in minimum tillage or no-tillage production systems for burndown of emerged and actively growing annual broadleaf weeds and residual control of grass weeds.

DO NOT apply to grain sorghum after crop emergence.

When grass weeds are present at the time of application, tank mixes with postemergence herbicides such as **Cyclone®**, **Gramoxone® Extra**, or **Roundup Ultra®** must be used. Refer to **Table 2** for sorghum use rates.

Under high soil moisture or cool conditions, **BAS 661 00 H** application may cause temporary stunting or leaf wrapping of sorghum. However, sorghum will normally outgrow these symptoms in 10-14 days.

Crop-Specific Restrictions and Limitations DO NOT graze or feed treated sorghum or silage prior to mature grain stage.

DO NOT apply **BAS 661 00 H** to sorghum grown for seed production.

BAS 661 00 H is not registered for use on sweet or forage sorghum.

Make no more than one application per growing season.

For sorghum produced under irrigation, use a minimum of 28 fluid ounces per acre.

DO NOT apply on coarse-textured soils with less than 1.5% organic matter.

Sorghum Tank Mixes and Sequential Uses

BAS 661 00 H may be tank mixed or applied sequentially in sorghum with one or more of the following herbicide products according to the specific tank mixing instructions in this label and respective product labels. Read and follow the applicable **Restrictions and Limitations** and **Directions For Use** on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

- atrazine
- Permit®
- Cyclone
- Roundup Ultra
- Gramoxone Extra
- 2.4-D
- Landmaster® BW
- Peak®

BAS 661 00 H can be used in sequential applications with other herbicides labeled for use on grain sorghum such as: **Banvel**, **Basagran®**, **Buctril®**, **Clarity**, **Marksman**, or **Weedmaster®**. This product cannot be mixed with any product containing a label prohibition against such mixing.

Pests listed in this label:				
Common Name	Scientific Name			
Barnyardgrass Beggarweed, Florida Buckwheat, Wild Carpetweed Cocklebur, Common Crabgrass, Large , Smooth	Echinochloa crus-galli Desmodium tortuosum Polygonum convolvulus Mullugo verticillata Xanthium pensylvanicum Digitaria sanguinalis Digitaria ischaemum			
Cupgrass, Southwestern , Woolly Flatsedge, Rice Foxtail, Giant , Green	Eriochloa gracilis Eriochloa villosa Cyperus iria Setaria faberi Setaria viridis			
, Yellow Goosegrass Jimsonweed Johnsongrass (seedling) Kochia	Setaria lutescens Eleusine indica Datura stramonium Sorghum halepense Kochia scoparia			
Lambsquarters, Common Millet, Wild Proso Morningglory, Ivyleaf , Tall Mustard, Wild	Chenopodium album Panicum miliaceum Ipomoea hederacea Ipomoea purpurea Sinapis arvensis			
Nightshade, Black , Eastern Black , Hairy Nutsedge, Yellow Oats, Wild Panicum, Fall	Solanum nigrum			
, Texas Pigweed , Palmer , Prostrate , Redroot , Smooth , Tumble	Panicum texanum Amaranthus palmeri Amaranthus blitoides Amaranthus retroflexus Amaranthus hybridus Amaranthus albus			
Pusley, Florida Purslane, Common Red Rice Ragweed, Common , Giant	Richardia scabra Por tulaca oleracea Oryza sativa Ambrosia artemisifolia Ambrosia trifida			
Sandbur Shattercane Signalgrass, Broadleaf Smartweed species Spurge, Prostrate Velvetleaf Waterhemp, Common , Tall Witchgrass	Cenchrus spp. Sorghum bicolor Brachiaria platphylla Polygonum spp. Euphorbia nutans Abutilon theophrastic Amaranthus rudis Amaranthus tuberculatus Panicum capillare			

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